

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
Revision of the Commission's Rules to)	CC Docket No. 94-102✓
Ensure Compatibility With Enhanced 911)	
Emergency Calling Systems)	
)	
Amendment of Parts 2 and 25 to Implement the)	IB Docket No. 99-67
Global Mobile Personal Communications by)	
Satellite (GMPCS) Memorandum of)	
Understanding and Arrangements; Petition of the)	
National Telecommunications and Information)	
Administration to Amend Part 25 of the)	
Commission's Rules to Establish Emissions)	
Limits for Mobile and Portable Earth Stations)	
Operating in the 1610-1660.5 MHz Band)	

Further Notice of Proposed Rulemaking

Adopted: December 11, 2002

Released: December 20, 2002

Comment Date: February 3, 2003
Reply Comment Date: February 28, 2003

By the Commission: Commissioner Adelstein **not** participating.

TABLE OF CONTENTS

Paragraph

I.	INTRODUCTION	1
II.	BACKGROUND	3
III.	DISCUSSION	11
	A. General Criteria	12
	B. Individual Voice Services and Devices	16
	1. Mobile Satellite Service (MSS)	17
	2. Telematics Services	57
	3. Multi-Line Telephone Systems	81
	4. Resold Cellular and PCS Service	92
	5. Pre-paid Calling	98
	6. Disposable Phones	103
	7. Automated Maritime Telecommunications Systems (AMTS)	107
	8. Emerging Voice Services and Devices	111
IV.	PROCEDURAL INFORMATION	116
V.	ORDERING CLAUSES	125
VI.	APPENDIX A	
VII.	APPENDIX B	

I. INTRODUCTION

1. Over the last four decades, access to 911 service has dramatically improved the ability of emergency personnel to respond quickly to people in distress.¹ Efforts by the telecommunications industry, state and local governments, and the federal government have resulted in wireline 911 service being available to approximately 98 percent of the population.² Congress found 911 service to be of such importance that it enacted a statute codifying 9-1-1 as the national emergency telephone number.³

2. **Me** here initiate a reevaluation of the scope of communications services that should provide access to emergency services.⁴ Today, wireline local exchange carriers provide 911 services generally pursuant to state or local provisions. Most CMRS licensees are providing basic and enhanced 911 service pursuant to Commission rules. In this *Further Notice*, we examine and **seek** comment on the need to require compliance with our basic and enhanced 911 (E911) rules, or similar requirements, by various other mobile wireless and certain wireline voice services. We consider whether existing services such as telematics or voice service provided by multi-line systems should be required to provide access to 911 service.⁵ We also consider whether some new services should be subject to any E911 requirements. **Me** seek comment throughout this *Further Notice* on the impact that exclusion of these services and devices from our 911 rules may have on consumers, as well as the technological and cost issues involved in providing E911, all in the context of the expectation of consumers for 911 service when they use these services and devices. In initiating this *Further Notice*, we are mindful of the need to balance the expectations of consumers to have access to 911 service with the need to continue to foster growth and competition in the telecommunications marketplace.

II. BACKGROUND

3. In 1994, the Commission initiated this proceeding by proposing to amend its rules to address issues raised by the provision of 911 and enhanced 911 services through certain telecommunications technologies.⁶ The Commission initially sought comment on rules that would require certain mobile

¹ In 1965, AT&T first announced its plans to make the three-digit number "911" available nationally as a number for accessing emergency personnel. See Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Notice of Proposed Rulemaking*, 9 FCC Rcd 6170, 6172 para. 3 (1994).

² See Implementation of 911 Act, The Use of N11 Codes and Other Abbreviated Dialing Arrangements, CC Docket No. 92-105, WT Docket No. 00-110, *Fifth Report and Order, First Report and Order, and Memorandum Opinion and Order on Reconsideration*, 16 FCC Rcd 27,264, 12,167 para 7 (2001) (*Fifth Report and Order*).

³ *Wireless Communications and Public Safety Act of 1999*, Pub. L. No. 106-81, 113 Stat. 1286 (codified at §§ 222 and 251(e)) (911 Act).

⁴ See 47 U.S.C. § 615 note.

⁵ "Telematics" can be generally defined as the integrated use of location technology and wireless communications to enhance the functionality of motor vehicles. Additionally, we use the phrase multi-line telecommunications system (or "multi-line system") to describe a set of phone systems that include: a private branch exchange (PBX), a Centrex telephone system, a key telephone system, and a hybrid telephone system. A private branch exchange is an electronic telephone switching exchange that acts as a branch of a central office for the private use of an organization. See A. Michael Noll, *INTRODUCTION TO TELEPHONES AND TELEPHONE SYSTEMS* at 196 (1998). Centrex is the use of the switching system at the local central office as if it were a PBX. *Id.* at 198. Key telephone systems serve a small number of extensions; to access a line, a key is depressed and a light indicates whether the particular line is available. *Id.* A hybrid telephone system is a system with PBX and key telephone system features.

⁶ See generally Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Notice of Proposed Rulemaking*, 9 FCC Rcd. 6170 (1994).

wireless licensees to ensure that their networks included features that would make enhanced 911 service available to their subscribers.⁷ In addition, the Commission sought comment on amending its Part 68 rules to ensure the compatibility of private branch exchanges (PBXs) and other dispersed multi-line telephone systems with enhanced 911 services.⁸

4. On June 12, 1996, the Commission adopted an order requiring certain mobile wireless licensees to implement basic 911 and enhanced 911 (E911) services.⁹ The *E911 First Report and Order* represented the culmination of efforts by the public safety community, the wireless telecommunications industry, and the Commission to improve the quality and reliability of 911 services to wireless customers nationwide. In the *E911 First Report and Order*, the Commission specified criteria for determining which licensees should be subject to its E911 requirements. It required compliance by those licensees (1) that offered real-time, two-way switched voice service, interconnected with the public switched network, either on a stand-alone basis or packaged with other telecommunications services; (2) whose customers clearly expected access to 911 and E911; (3) that competed with analog and broadband PCS providers; and (4) where it is technically and operationally feasible to provide enhanced 911 service.¹⁰ Based on these criteria, the Commission determined that cellular licensees, broadband Personal Communications Service (PCS) licensees, and certain Specialized Mobile Radio (SMR) licensees,¹¹ collectively "covered carriers," would be required to meet basic and enhanced 911 service requirements for completing emergency calls, including forwarding all 911 calls without delay¹² and relaying a caller's Automatic Number Identification (ANI) and Automatic Location Information (ALI) to the appropriate Public Safety Answering Point (PSAP).¹³

5. The Commission exempted certain other two-way voice services from its E911 requirements. For example, the Commission exempted Air-to-Ground (Part 22, Subpart G)¹⁴ and Public Coast Stations (Part 80, Subpart J)¹⁵ because passengers and crew using these services did not rely on ground-based emergency services such as 911 or E911.¹⁶ The Commission deferred a decision on whether to require

⁷ See *id.*

⁸ See *id.* para 1.

⁹ See Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 18676 (1996) (*E911 First Report and Order*).

¹⁰ *Id.* at 18716-18 paras. 80-84.

¹¹ The Commission's E911 requirements covered only SMR licensees that held either licenses or authorizations to operate 800 MHz or 900 MHz service. *E911 First Report and Order*, 11 FCC Rcd 18676, 18716-18 at paras. 80-84. "Covered SMR" also included those 800/900 MHz SMR licensees that offered real-time, two-way switched voice service that was interconnected with the public switched network, either on a stand-alone basis or packaged with other telecommunications services. *E911 First Report and Order*, 11 FCC Rcd 18676, 18716-18 at paras. 80-84.

¹² See *E911 First Report and Order*, 11 FCC Rcd at 18692-97 paras. 29-42 (requiring covered carriers to transmit all 911 calls without subjecting them to any call validation procedures).

¹³ *E911 First Report and Order*, 11 FCC Rcd 18676, 18689-18722 paras. 24-91. Recognizing the need for vigorous implementation of the E911 requirements, the Commission adopted a phased implementation plan for the covered carriers. Phase I implementation, which requires a covered carrier to transmit a 911 caller's call-back number and cell site to the appropriate PSAP, began on April 1, 1998. See 47 C.F.R. § 20.18(d). Phase II implementation, which requires a covered carrier to transmit a 911 caller's location information to the appropriate PSAP, began on October 1, 2001. See 47 C.F.R. § 20.18 (e), (h).

¹⁴ 47 C.F.R. pt. 20, subpart G.

¹⁵ 47 C.F.R. pt. 80, subpart J.

¹⁶ *E911 First Report and Order*, 11 FCC Rcd 18676, 18717-18 para. 82. In the *Fifth Report and Order*, the Commission required VPC licensees, to the extent that they offer a land-based "real-time, two-way switched voice

(continued...)

compliance with its enhanced 911 rules by multi-line systems.¹⁷ but has continued to refresh the record on multi-line systems.¹⁸

6. In addition, the Commission concluded that given technological impediments and the coordination of international standards, MSS should not be required, at that time, to provide appropriate access to emergency services." The Commission did indicate that it would consider adopting requirements at a later time for MSS, and urged MSS providers to continue to cooperate with public safety agencies in the development of mutually acceptable means of accessing emergency services." The Commission, however, noted that it expected that MSS providers would eventually need to comply²¹ and "provide appropriate access to emergency services. . . ."²²

7. The Commission again addressed the subject of emergency-call service for MSS users in IB Docket No. 99-67, which primarily concerns adoption of rules to facilitate and promote international circulation of customer-operated satellite earth terminals used for Global Mobile Personal Communications by Satellite (GMPCS). In the initial Notice of Proposed Rulemaking in that proceeding, issued in 1999, the Commission also sought comment as to whether, in light of recent technological developments, it should require MSS providers to implement 911 features, subject to transitional measures to avert adverse impact on systems already in operation or at an advanced stage of development." The Commission received 30 comments and 16 replies in response to the CMPCS NPRM, representing 34 entities. Of these, 18 parties filed comments and/or replies regarding the 911 issues."

8. In the *Notice of Proposed Rulemaking* that proposed licensing and service rules for the 2 GHz MSS, the Commission inquired whether it should require licensees in this service to implement basic and/or enhanced 911 capabilities." In the *2 GHz Report and Order*, the Commission acknowledged that 911 services can save lives and that significant strides had been made in developing location technology, but found that the information in the record was insufficient to support adoption of specific 911

(...continued from previous page)

service that is interconnected with the public switched network." to comply with the Commission's wireless E911 rules. See Implementation of 911 Act: The Use of N11 Codes and Other Abbreviated Dialing Arrangements, CC Docket No. 92-105, WT Docket No. 00-110, *Fifth Report and Order, First Report and Order, and Memorandum Opinion and Order on Reconsideration*, 16 FCC Rcd 22,264 (2001) (*Fifth Report and Order*).

¹⁷ *E911 First Report and Order*, 11 FCC Rcd at 18678 n. 1.

¹⁸ See Common Carrier Bureau Seeks Comment on Telident's Enhanced 911 Plan 68 Recommendations, CC Docket No. 94-102, *Public Notice*, 11 FCC Rcd. 22,475 (1996); see also Common Carrier Bureau Seeks Comment on Enhanced 911 Wireless Consensus Agreement, CC Docket No. 94-102, *Public Notice*, 12 FCC Rcd. 24,323 (1997).

¹⁹ See *First Report and Order*, 11 FCC Rcd at 18718 para. 83.

²⁰ *Id.* See also *Wireless E911 Recon Order*, 12 FCC Rcd. 22,665 at para. 88.

²¹ See *First Report and Order*, 11 FCC Rcd at 18718 para. 83.

²² *Wireless E911 Recon Order*, 12 FCC Rcd. 22,665 at para. 88.

²³ Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements: Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band, *Notice of Proposed Rulemaking*, 14 FCC Rcd 5871 (1999), at ¶98. (GMPCS NPRM)

²⁴ See Appendix A for a listing of the commenting parties.

²⁵ Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, IB Docket No. 99-81, *Notice of Proposed Rulemaking*, 14 FCC Rcd. 4843, 4885 para. 94 (1999) (*IGHZ NPRM*).

requirements in the 2 GHz MSS service rules proceeding." Therefore, the Commission decided that it would address issues concerning 911 requirements for 2 GHz MSS in the more general 911 inquiry conducted in the *GMPCS* proceeding." To that end, the Commission directed the International Bureau to issue a public notice in the *GMPCS* proceeding to request additional information "regarding the technological, regulatory, and international aspects of Basic 911 and E911 for satellite services." Accordingly, in December 2000, the International Bureau released a public notice, and received 10 comments and six replies, accounting for a total of 11 parties.²⁹ A subsequent informal meeting held between Bureau staff and several satellite licensees regarding currently used emergency call procedures provided additional information in this docket.³⁰ The record developed thus far³¹ provides a basis for proposing emergency call procedure requirements, in particular the establishment of operator-staffed emergency service bureaus or call centers. Based on these various records, we also now seek comment on more detailed questions concerning how MSS should provide access to 911 service."

9. In 1997, the Commission narrowed its definition of "covered SMR" to include only those SMR licensees that will directly compete with cellular and PCS in providing comparable public mobile interconnected service." By its action, the Commission removed from its requirements those SMR licensees that primarily offer dispatch service.³² As a means of distinguishing which SMR licensees remained under its E911 obligations, the Commission found that only those SMR licensees that have "in-network" switching capabilities should be so obligated." The Commission further recognized, however, that certain SMR licensees that had an in-network switching capability may also offer their customers dispatch capability. The Commission, therefore, concluded that covered SMR licensees that offer dispatch to customers may meet their E911 obligations to their dispatch customers by providing either

²⁶ Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, IB Docket No. 99-81, *Report and Order*, 15 FCC Rcd 16127 at para. 125 (2000) (2 GHz *Report and Order*).

²⁷ *Id.* While the Commission declined to adopt any 911 requirements for 2 GHz MSS, it did require that any handset used for 2 GHz MSS that does not have access to basic 911 or E911 clearly indicate the lack of these functions with a label or sticker affixed to the handsets. This labeling requirement remains in effect until the Commission adopts an order in the *GMPCS* proceeding. *Id.* at para. 126.

²⁸ *Id.* at para. 125.

²⁹ International Bureau Invites Further Comment Regarding Adoption of 911 Requirements for Satellite Services, IB Docket No. 99-67, *Public Notice*, 16 FCC Rcd. 3780 (2000) (*Satellite 911 Public Notice*).

³⁰ Ex Parte Meeting in IB Docket No. 99-67, Memorandum from Arthur Lechtman, Satellite and Radiocommunication Division, International Bureau, Federal Communications Commission to William F. Caton, Acting Secretary, February 22, 2002 (*Feb. 27 Ex Parte Memo*).

³¹ In making the proposals and raising the questions contained in this *Further Notice*, we consider the comments received in both IB Docket No. 99-Xi (Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band) and IB Docket No. 99-67 (both the *GMPCS NPRM* and the *Satellite 911 Public Notice*). See Appendix A.

³² See *infra* paras. 17-56.

³³ See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Memorandum Opinion and Order*, 12 FCC Rcd 22665, 22703-05 paras. 78-83 (1997) (*Wireless E911 First Recon Order*).

³⁴ *Id.*

³⁵ *Id.* at 22703-04 para. 78. The Commission chose this network capability because "in-network" switching allows for seamless hand off of calls and allows for frequency reuse, thus allowing the SMR licensees to accommodate a larger group of customers, which enables the SMR licensee to compete directly with cellular and PCS. *Id.*

direct 911 dialing or, alternatively, by routing dispatch customers' emergency calls through a dispatcher.;"

10. In 1999, Congress established 911 as the universal emergency service number.³⁷ Through the 911 Act, Congress sought to "facilitate the prompt deployment. . . of a seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation's public safety. . . needs."³⁸

III. DISCUSSION

11. In this proceeding, we are seeking comment on whether providers of various services and devices not currently within the scope of our 911 rules should, consistent with the public interest, be required to provide access to emergency services. We also ask what type of information, such as call-back and location should be delivered to PSAPs on a service-by-service basis. We begin by setting out and seeking comment on the general criteria that we want commenters to use in analyzing whether the enumerated services and devices should be included within the scope of services that offer 911 service.³⁹ We then turn to the individual services and devices on which we seek comment and raise additional questions where needed. For example, in each of the sections below we ask commenters to address the Commission's legal authority over either the entity that manufactures the device or that provides the service to the general public. We seek comment on those services and devices that offer voice communications to their end users.

A. General Criteria

12. We begin by seeking comment on the criteria the Commission should use in analyzing whether a particular class of providers should be required to comply with our basic and enhanced 911 requirements, or with similar requirements. We recognize that we are reviewing services and devices that vary greatly over technologies and are at different stages of development. We believe that by establishing criteria of general applicability, the Commission will be able to provide a transparent methodology for determining which classes of services and devices may be expected to comply with our 911 rules. Moreover, by establishing a list of general criteria, we provide commenters a basis on which to make their arguments for or against inclusion of providers of a particular service or device.

13. We thus seek comment on our proposed analysis of different types of services and devices starting with the criteria that guided our decision in the *E911 First Report and Order*.⁴⁰ Based on those criteria, we propose analyzing each service or product based on whether: (1) it offer real-time, two-way voice service that is interconnected to the public switched network on either a stand-alone basis or packaged with other telecommunications services; (2) the customers using the service or device have a reasonable expectation of access to 911 and E911 services; (3) the service competes with traditional CMRS or wireline local exchange services; and (4) it is technically and operationally feasible for the service or device to support E911.⁴¹ Underlying the Commission's earlier decisions on 911 service was an understanding that the customers of "public telephone services" expect access to 911 and E911 services.⁴² So, for example, in the *E911 First Report and Order*, the Commission required CMRS.

³⁷ *Id.* at 22704 para. 79.

³⁸ See *Wireless Communications and Public Safety Act of 1999*.

³⁹ See *Wireless Communications and Public Safety Act of 1999*.

⁴⁰ *E911 First Report and Order*, 11 FCC Rcd at 18716-18 paras. 80-84.

⁴¹ *Id.*

⁴² *Id.* at 18716 para. 81.

⁴³ *Id.* at 18716 para. 80.